

SEQUENCE LISTING

<110> SmithKline Beecham Biologicals SA

<120> Novel Compounds

<130> BM45398

<160> 8

<170> FastSEQ for Windows Version 3.0

<210> 1

<211> 615

<212> DNA

<213> *Moraxella catarrhalis*

<400> 1

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gcaatctcgc	tactggacat	gggtaagctt	gatcaagcca	aacagcagtt	ggatgctgct	180
ttatcggctg	atcggcagtt	tgacactgcc	tatcgcacct	tggtcaaagg	ttatcaagct	240
tcggaggatg	ccactcacca	aaccaaagct	caacgcttgt	ttgaaaaggc	gattgaacta	300
aatcctaaag	atatgcaaag	ttatatggat	tatggatttt	atttgggtgca	gatgggggac	360
ttgtcagggtg	cgttgattta	ttttgataaa	cctagccgag	ccatcggtta	tgaagggcgt	420
gtggtagcca	tcgaaaatat	ggcatatatt	tattatcatc	aatatgaagc	tgccaaatca	480
ccaacaaaag	atgactataa	taacgccaaa	tcagcacttg	agcgtgcgtt	aatttcaggc	540
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agtgattata	aatag					615

<210> 2

<211> 204

<212> PRT

<213> *Moraxella catarrhalis*

<400> 2

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Leu	Ala	Gln	Ile	Arg	Thr	Gln	Ile	Ala	Ile	Ser	Leu	Leu	Asp	Met	Gly
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Lys	Leu	Asp	Gln	Ala	Lys	Gln	Gln	Leu	Asp	Ala	Ala	Leu	Ser	Ala	Asp
	50				55				60						
Arg	Gln	Phe	Ala	Pro	Ala	Tyr	Arg	Thr	Leu	Ala	Lys	Val	Tyr	Gln	Ala
65					70				75					80	
Ser	Glu	Asp	Ala	Thr	His	Gln	Thr	Lys	Ala	Gln	Arg	Leu	Phe	Glu	Lys
			85					90					95		
Ala	Ile	Glu	Leu	Asn	Pro	Lys	Asp	Met	Gln	Ser	Tyr	Met	Asp	Tyr	Gly
		100					105					110			
Phe	Tyr	Leu	Val	Gln	Met	Gly	Asp	Leu	Ser	Gly	Ala	Leu	Ile	Tyr	Phe
	115					120					125				
Asp	Lys	Pro	Ser	Arg	Ala	Ile	Gly	Tyr	Glu	Gly	Arg	Val	Val	Ala	Ile
	130				135				140						
Glu	Asn	Met	Ala	Tyr	Ile	Tyr	Tyr	His	Gln	Tyr	Glu	Ala	Ala	Lys	Ser
145					150				155					160	
Pro	Thr	Lys	Asp	Asp	Tyr	Asn	Asn	Ala	Lys	Ser	Ala	Leu	Glu	Arg	Ala

10/069544

165 170 175
 Leu Ile Ser Gly Thr Gln His Asp Glu Ile Lys Lys Ser Tyr Asp Lys
 180 185 190
 Leu Leu Ser Asp Tyr Lys Leu L u Ser Asp Tyr Lys
 195 200

<210> 3
 <211> 612
 <212> DNA
 <213> *Moraxella catarrhalis*

<400> 3
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 gcaatctcgc tactggacat gggtaagctt gatcaagcca aacagcagtt ggatgctgct 180
 ttatcggtcg atcggcagtt tgcacctgcc tatcgcacct tggcaaagggt ttatcaagct 240
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 aatcctaaag atatgcaaag ttatatggat tatggatttt atttgggtgca gatgggggac 360
 ttgtcagggtg cgttgattta ttttgataaa cctagccgag ccatcggtta tgaagggcgt 420
 gtggtagcca tcgaaaatat ggcatatatt tattatcatc aatatgaagc tgccaaatca 480
 ccaacaaaag atgactataa taacgcaaaa tcagcacttg agcgtgcgtt aatttcaggc 540
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<210> 4
 <211> 204
 <212> PRT
 <213> *Moraxella catarrhalis*

<400> 4
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 Leu Ser Ala Cys Gln Ser Thr Pro Ile Pro Pro Lys Asn Asn Pro Gln
 20 25 30
 Leu Ala Gln Ile Arg Thr Gln Ile Ala Ile Ser Leu Leu Asp Met Gly
 35 40 45
 Lys Leu Asp Gln Ala Lys Gln Leu Asp Ala Ala Leu Ser Ala Asp
 50 55 60
 Arg Gln Phe Ala Pro Ala Tyr Arg Thr Leu Ala Lys Val Tyr Gln Ala
 65 70 75 80
 Ser Glu Asp Ala Thr His Gln Thr Lys Ala Gln Arg Leu Phe Glu Lys
 85 90 95
 Ala Ile Glu Leu Asn Pro Lys Asp Met Gln Ser Tyr Met Asp Tyr Gly
 100 105 110
 Phe Tyr Leu Val Gln Met Gly Asp Leu Ser Gly Ala Leu Ile Tyr Phe
 115 120 125
 Asp Lys Pro Ser Arg Ala Ile Gly Tyr Glu Gly Arg Val Val Ala Ile
 130 135 140
 Glu Asn Met Ala Tyr Ile Tyr Tyr His Gln Tyr Glu Ala Ala Lys Ser
 145 150 155 160
 Pro Thr Lys Asp Asp Tyr Asn Asn Ala Lys Ser Ala Leu Glu Arg Ala
 165 170 175
 Leu Ile Ser Gly Thr Gln His Asp Glu Ile Lys Lys Ser Tyr Asp Lys
 180 185 190
 Leu Leu Ser Asp Tyr Lys Leu Leu Ser Asp Tyr Lys
 195 200

<210> 5

WO 01/09330

PCT/EP00/07281

<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 5
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<210> 6
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 6
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<210> 7
<211> 38
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

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<210> 8
<211> 60
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 8
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SEQUENCE LISTING

<110> Joelle Thonnard

<120> Novel Compounds

<130> BM45398

<150> 99180040.8

<151> 1999-07-30

<160> 8

<170> FastSEQ for Windows Version 4.0

<210> 1

<211> 615

<212> DNA

<213> Moraxella catarrhalis

<400> 1

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gcaatctcgc tactggacat gggtaagctt gatcaagcca aacagcagtt
ggatgctgct     180
ttatcggctg atcggcagtt tgcacctgcc tatcgcacct tggcaaaggt
ttatcaagct     240
tcggaggatg ccactcacca aaccaaagct caacgcttgt ttgaaaaggc
gattgaacta     300
aatcctaaag atatgcaaag ttatatggat tatggatttt atttggtgca
gatgggggac     360
ttgtcaggtg cgttgattta ttttgataaa cctagccgag ccatcggtta
tgaagggcgt     420
gtggtagcca tcgaaaatat ggcatatatt tattatcatc aatatgaagc
tgccaaatca     480
ccaacaaaag atgactataa taacgccaaa tcagcacttg agcgtgcggt
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<210> 2
 <211> 204
 <212> PRT
 <213> Moraxella catarrhalis

<400> 2
 Met Lys Ile Arg Val Lys Trp Pro Met Val Met Ala Met Gly Leu Val
 1 5 10 15
 Leu Ser Ala Cys Gln Ser Thr Pro Ile Pro Pro Lys Asn Asn Pro Gln
 20 25 30
 Leu Ala Gln Ile Arg Thr Gln Ile Ala Ile Ser Leu Leu Asp Met Gly
 35 40 45
 Lys Leu Asp Gln Ala Lys Gln Gln Leu Asp Ala Ala Leu Ser Ala Asp
 50 55 60
 Arg Gln Phe Ala Pro Ala Tyr Arg Thr Leu Ala Lys Val Tyr Gln Ala
 65 70 75 80
 Ser Glu Asp Ala Thr His Gln Thr Lys Ala Gln Arg Leu Phe Glu Lys
 85 90 95
 Ala Ile Glu Leu Asn Pro Lys Asp Met Gln Ser Tyr Met Asp Tyr Gly
 100 105 110
 Phe Tyr Leu Val Gln Met Gly Asp Leu Ser Gly Ala Leu Ile Tyr Phe
 115 120 125
 Asp Lys Pro Ser Arg Ala Ile Gly Tyr Glu Gly Arg Val Val Ala Ile
 130 135 140
 Glu Asn Met Ala Tyr Ile Tyr Tyr His Gln Tyr Glu Ala Ala Lys Ser
 145 150 155 160
 Pro Thr Lys Asp Asp Tyr Asn Asn Ala Lys Ser Ala Leu Glu Arg Ala
 165 170 175
 Leu Ile Ser Gly Thr Gln His Asp Glu Ile Lys Lys Ser Tyr Asp Lys
 180 185 190
 Leu Leu Ser Asp Tyr Lys Leu Leu Ser Asp Tyr Lys
 195 200

<210> 3
 <211> 612
 <212> DNA
 <213> Moraxella catarrhalis

<400> 3
 atgaaaatcc gagtaaagtg gcctatggta atggcgatgg ggctggtttt
 aagtgcctgt 60
 caaagtacac caataccgcc taaaaataat ccgcaattgg cacaaatccg
 aacccaaatt 120

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ttatcaagct      240
tcggaggatg ccactcacca aaccaaagct caacgcttgt ttgaaaaggc
gattgaacta      300
aatcctaaag atatgcaaag ttatatggat tatggatttt atttggtgca
gatgggggac      360
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tgaagggcgt      420
gtggtagcca tcgaaaatat ggcatatatatt tattatcatc aatatgaagc
tgccaaatca      480
ccaacaaaag atgactataa taacgccaaa tcagcacttg agcgtgcggt
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612

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<210> 4
<211> 204
<212> PRT
<213> Moraxella catarrhalis

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<400> 4
Met Lys Ile Arg Val Lys Trp Pro Met Val Met Ala Met Gly Leu Val
 1              5              10              15
Leu Ser Ala Cys Gln Ser Thr Pro Ile Pro Pro Lys Asn Asn Pro Gln
      20              25              30
Leu Ala Gln Ile Arg Thr Gln Ile Ala Ile Ser Leu Leu Asp Met Gly
      35              40              45
Lys Leu Asp Gln Ala Lys Gln Gln Leu Asp Ala Ala Leu Ser Ala Asp
      50              55              60
Arg Gln Phe Ala Pro Ala Tyr Arg Thr Leu Ala Lys Val Tyr Gln Ala
      65              70              75              80
Ser Glu Asp Ala Thr His Gln Thr Lys Ala Gln Arg Leu Phe Glu Lys
      85              90              95
Ala Ile Glu Leu Asn Pro Lys Asp Met Gln Ser Tyr Met Asp Tyr Gly
      100             105             110
Phe Tyr Leu Val Gln Met Gly Asp Leu Ser Gly Ala Leu Ile Tyr Phe
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Glu Asn Met Ala Tyr Ile Tyr Tyr His Gln Tyr Glu Ala Ala Lys Ser
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Pro	Thr	Lys	Asp	Asp	Tyr	Asn	Asn	Ala	Lys	Ser	Ala	Leu	Glu	Arg	Ala
				165					170					175	
Leu	Ile	Ser	Gly	Thr	Gln	His	Asp	Glu	Ile	Lys	Lys	Ser	Tyr	Asp	Lys
			180					185					190		
Leu	Leu	Ser	Asp	Tyr	Lys	Leu	Leu	Ser	Asp	Tyr	Lys				
		195					200								

<210> 5
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> primer

<400> 5
 tgacaattaa tcatcggctc g
 21

<210> 6
 <211> 22
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> primer

<400> 6
 ggctgaaaat cttctctcat cc
 22

<210> 7
 <211> 38
 <212> DNA
 <213> Artificial Sequence

<220>
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<400> 7
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 38

<210> 8
 <211> 60

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

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ataatttata 60